Market and tobacco industry response to standardised tobacco packaging in the UK

Summary of two commissioned research projects examining changes in the tobacco market before, and after, the implementation of standardised packaging in the UK

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CANCER RESEARCH UK

Authors

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University of Bath
Rosemary Hiscock[1]
Nicole H Augustin[2]
J Robert Branston[3]
Karen Evans-Reeves[1]
Kathryn Lauber[1]
Anna B Gilmore[1]

[1] Tobacco Control Research Group, Department for Health, University of Bath
[2] Department of Mathematical Sciences, University of Bath and School of Mathematics, University of Edinburgh
[3] School of Management, University of Bath.

University of Stirling
Nathan Critchlow[1]
Martine Stead[1]
Kathryn Angus[1]
Douglas Eadie[1]
Anne Marie MacKintosh[1,2]

[1] Institute for Social Marketing and Health, Faculty of Health Sciences and Sport, University of Stirling.
[2] Centre for Tobacco Control Research, University of Stirling.

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Cancer Research UK

Cancer Research UK is the world's leading cancer charity dedicated to saving lives through research, influence and information. We support research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses. This pioneering work into the prevention, diagnosis and treatment of cancer has helped save millions of lives. Together with our supporters and partners, Cancer Research UK's vision is to bring forward the day when all cancers are cured.

Cancer Research UK is a registered charity in England and Wales (1089464), Scotland (SC041666), the Isle of Man (1103) and Jersey (247).

Policy context

Globally, around seven million people die from smoking every year. The World Health Organisation's Framework Convention on Tobacco Control (FCTC) identifies several key policies to reduce smoking prevalence, including the use of standardised ('plain') packaging. The intention of standardised packaging is to reduce the appeal of tobacco products, particularly among young people; to increase the salience of health warnings on packs; and to reduce erroneous perceptions of the relative harmfulness of different tobacco products.

In 2016, the UK and France became the second countries in the world after Australia to mandate standardised (plain) packaging for tobacco products. Several others have now also implemented similar legislation, including New Zealand, Ireland, Thailand, Canada and Belgium. Specifically, in the UK, the Standardised Packaging of Tobacco Products Regulations 2015 and Tobacco and Related Products Regulations 2016 – which incorporated the European Tobacco Products Directive (EU TPD) into UK law – mandated that factory-made-cigarettes (FMCs) and roll-your-own (RYO) tobacco sold in the UK must:

1. Be sold to the consumer in drab green coloured standardised packaging with specified dimensions.
2. Display no branding or trademarks except the product name and brand variant in a stipulated font, size and colour
3. Have pictorial warnings covering at least 65% of the primary surface.
4. Have text warnings covering 50% of secondary surfaces.
5. Contain a minimum of 20 FMCs or 30 grams (g) of RYO.
6. Have no price-marking on the packaging or outer cellophane.
7. Not use a brand name that references taste, smell, flavour or anything that promotes the products/brand by creating an erroneous impression about its characteristics.

The regulations did not mandate standardised packaging of cigars, cigarillos and pipe tobacco and heated tobacco products.

Both the UK and EU legislation initially came into force on the 20th May 2016, and hereafter are collectively referred to as 'standardised packaging'. In the UK a 12-month transition period was permitted to allow sufficient time for retailers to legally sell existing branded packs. The 12-month transition period in the UK was longer than the two-month period permitted in Australia and the nine-month period permitted in France.

On the same day that standardised packaging became mandatory (20th May 2017), the UK also introduced a Minimum Excise Tax (MET) for FMCs. Under the MET, the tax payable on FMCs became either the amount applicable under the typical duty rates (an escalating monetary value per 1,000 FMCs plus and *ad valorem* tax representing 16.5% of the recommended retail price) or the new minimum duty threshold (initially £268.64 per 1,000 FMCs, with anticipated annual escalator), whichever had the higher value. This new tax set a *de facto* minimum floor price for 20 FMCs (£6.44, including 20% Value Added Tax), as selling a product below under

that value would mean that duty payable would exceed sales revenue[1]. The MET only applied to FMCs, and not RYO or other tobacco products (e.g. cigars or cigarillos).

[1] It remained possible to sell products below this threshold if distributing/absorbing the tax increases across a company portfolio of products, a process known as 'under shifting' or 'over shifting'. Put simply, a tobacco company could still legally sell a pack of 20 FMCs for under £6.44, and the loss of revenue could be offset by increasing the cost of 'premium' products more than required under tax escalation, or spreading the deficit across a variety of products (e.g. onto those not subject to the MET, for example RYO or cigarillos).

Summary of commissioned research

Cancer Research UK commissioned two projects to provide a detailed examination of market changes and tobacco industry response before, during and after, the implementation of standardised packaging. Doing so provides important insight into how the legislation may have influenced consumers and tobacco companies. For example, knowing at what stage consumers were likely to be exposed to standardised products (versus fully branded) has important implications for understanding when a corresponding impact on smoking attitudes and behaviour may be observed. The projects also provide valuable insight into how tobacco companies have responded to the new restrictions and what loopholes still exist in the legislation.

The first project, conducted by the University of Bath, provides a comprehensive overview of changes in price and availability across the UK tobacco market tobacco before and after the implementation of standardised packaging and the MET. The team at Bath also examined how tobacco companies had responded to the legislation, such as changes to product design and brand variant names. To do this, Bath used a variety of methods, including Electronic Point of Sale (EPoS) data on tobacco product prices and sales volumes (supplied by Nielsen), monthly purchasing of tobacco products, and an analysis of retail trade press (i.e. magazines for retailers).

The Bath researchers found that, following the introduction of standardised packaging, tobacco companies innovated their products and marketing activities, and there was no long-term lowering of tobacco prices as the industry had argued when opposing the legislation. The concurrent introduction of standardised packaging and MET in the UK was associated with significant decline in tobacco sales and in tobacco industry revenues. Tobacco sales were falling by an average of seven million sticks[2] per month pre-implementation, but post-implementation sales were declining faster — by an average of 13 million fewer sticks per-month. This accelerated decline was driven principally by falling FMC sales, and companies' monthly net revenues declined from an estimated £229 million in May 2015 to an estimated £192 million in April 2018.

The second project, conducted by the Institute for Social Marketing and Health at the University of Stirling, focused specifically on small retailers (e.g. grocery and convenience stores). Small retailers are a key group in the tobacco market, as over half of small retailers consider tobacco to be important to their profits, and over half of their customers reportedly purchase tobacco. Small retailers also account for a large volume of cigarette sales in the UK. To do this, they examined EPoS data from small retailers (supplied by the Retail Data Partnership Limited), and analysed the retail trade press.

The Stirling researchers found that tobacco companies used the full 12-month transition period to delay the removal of fully branded tobacco products and only gradually phased in

[2] "Sticks" herein refers to the number of FMCs or stick-equivalents of RYO.

standardised packaging, though after the transition period ended compliance was high among small retailers. Despite the tobacco industry encouraging retailers to sell tobacco at the recommended retail price or below to remain competitive, small retailers gradually increased prices above RRP as standardised packaging was introduced.

The objectives, methods and key findings from each project are now summarised. Both projects have been extensively published in the peer reviewed literature, and more details concerning the methods, results and implications are available in the publications listed in References.

Summary: University of Bath project

Summary of methods

The University of Bath's research was divided into two studies. The first examined the impacts of standardised packaging and the MET on pricing, sales volume, and tobacco industry revenue. EPoS data for the UK market[3] was collected from May 2015 (i.e. one year before the start of the transition period for standardised packaging) to April 2018 (i.e. one year after standardised packaging and the MET had become mandatory). The main outcomes were changes in:

1. sales volume;
2. prices (adjusted for inflation and sales volumes); and
3. tobacco company revenue[4].

Analyses were conducted using (generalised) additive mixed models, and trends were modelled market-wide, for FMC and RYO separately, and by price segment[5].

The second study conducted by the University of Bath assessed compliance with the legislation: how tobacco companies had responded to the legislation, and how exploitation of any loopholes may undermine the intended effects of the legislation. This study collected data in several ways. Compliance with the legislation was defined as making legally required changes in packaging's branding, size, and brand variant name, and was assessed using the Nielsen data. To explore how tobacco companies had responded to the legislation (e.g. in terms of adaptations to packaging and products), the team at Bath analysed:

1. the Nielsen EPoS data;
2. monthly pack purchases of eight FMCs and two RYO products;
3. tobacco advertisements in the retail trade press; and
4. commercial literature, such as articles and reports on tobacco from the retail trade press or tobacco company publications.

Key findings

The rate of decline for tobacco sales doubled around the introduction of standardised packaging and MET. On average seven million fewer sticks were sold per month pre-

[3] Products distributed to less than 10% of stores were excluded from the sample, however, the final dataset did include an estimated 91% of the market from the data.
[4] This was calculated by calculating the amount of tax applicable (e.g. excise duty + ad valorem or MET, and Value Added Tax [VAT]), deducting this from the nominal stick price, and adjusting for inflation.
[5] Details on how the price segments (e.g. premium) were categorised is described in the peer-reviewed papers.

implementation whereas an average of 13 million fewer sticks were sold per-month post-implementation. This decline was principally driven by falling FMC sales; there was no significant change in the growth of RYO sales pre and post implementation. The most marked change in sales volume was among the cheapest FMC brands.

There were increases in prices, particularly for the cheapest brands. A marked rise in the price of the cheapest FMC brands occurred from the point the MET was announced (March 2017) through to July 2017, which suggests that tobacco companies gradually increased prices instead of imposing an acute rise at the point of implementation. The timing and focus of the price changes (on the cheapest FMC brands) suggest that the MET contributed to price rises, thus reinforcing the importance of a robust tax system. In support of this, further tax increases in November 2017 were also associated with a price rise across all segments.

Market segmentation continued to occur. There was no evidence of commoditisation – premium products continued to be sold at much higher prices than other segments of the market. The price gap between premium FMC brands and the cheapest FMC brands in fact was wider at the end of the data series than at the beginning, as too was the gap between the cheapest FMC brands and most expensive RYO.

There were declines in estimated tobacco industry revenue. Companies' monthly net revenues declined from an estimated £229 million in May 2015 to an estimated £192 million in April 2018. This suggests overall that rising prices did not offset the reported decreases in sales volume. The declines in tobacco industry revenue began when standardised packaging was first introduced (May 2016) and continued throughout the study period.

Compliance was mostly high. By one month after full implementation of standardised packaging, the Nielsen data showed that 97% of FMC and 98% of RYO products were sold in compliant packaging.

Tobacco companies delayed the removal of fully branded products until the end of the transition period, so the long (12-month) transition period was used to prolong sales of these products. Only around a fifth of FMC sticks (21%) and two-fifths of RYO (44%) were sold in standardised packaging seven months into the transition period (January 2017). To maintain the visibility of fully-branded products, retailers were reportedly incentivised to buy large volumes of fully-branded stock before the end of the transition period and offered buy-back schemes for left over stock.

Tobacco companies used the transition period to inform retailers and consumers of changes, and to introduce new features to differentiate products post-implementation. Some tobacco companies included pack inserts to guide consumers about what fully branded products would look like post-implementation. Examples of new features to differentiate premium products included bevelled (i.e. rounded) edges on the packs and a 'proseal' closing mechanism that was claimed to maintain freshness (Figure 1). Particular emphasis on innovation was given to cheap products attractive to price-sensitive consumers, including menthol and flavour changing (i.e. capsule) cigarettes, and novel filter designs which had been historically less common in cheap brand variants. These features were not prohibited when standardised packaging legislation

came into force[6]. Tobacco industry marketing in the retail trade press drew retailer attention to these features, as well as other products exempt from the legislation (e.g. cigars and pipe tobacco). Retailers were still exposed to fully-branded packaging post-implementation, through retail press adverts and outer packaging used at wholesalers (e.g. sleeves for multipacks).

Figure 1: The evolution of packaging from a straight edge pack to a branded bevelled edge pack with a new internal packet with pro-seal sealing mechanism, to standardised packaging maintaining these innovations.

Tobacco companies used loopholes to create misconceptions, including about health. In the Nielsen data, around a third (35%) of brand variants changed their name post-implementation. Around half (58%) of the revised names did not need to be adjusted for compliance with legislation and those changed for compliance reasons often continued to promulgate misconceptions. For example, some companies replaced prohibited names with new brand variant names that used colours and adjectives intended to invoke the same connotations; for example, changing 'smooth' to 'bright blue' or 'sky blue'. Such colours often replicated the colour of the former fully branded packs and may have facilitated continued misconceptions about the relative harms of products. Other colour names reflected the colour of the branded packaging.

Tobacco companies introduced new products and innovations to further circumvent standardised packaging legislation, the MET, and the more recent ban on menthol cigarettes in May 2020. Cigarillos are exempt from the MET and the majority of standardised packaging legislation including controls on branding, price marking and pack sizing. They are also exempt from the tobacco flavour ban, which came into full effect in May 2020.

[6] Flavour-changing features (e.g. capsules) were prohibited in the UK on 20 May 2020, as part of the next steps of the European Tobacco Products Directive.

Tobacco companies have capitalised on these gaps in the legislation by introducing new menthol-flavoured cigarillos which closely resemble cigarettes and are even sold under a cigarette brand name as leaf-wrapped cigarettes. As cigarillos can be sold in 10-packs and are subject to lower taxes, these were introduced at a retail price of less than £5 (approximately half the price of a cigarette pack) as the flavour ban came into force across the UK. Data suggests a growth in sales of cigarillos since the regulation banning tobacco flavours was enacted in 2016, reversing a downward trend.

Tobacco companies also introduced menthol-flavoured cards that could be inserted into packs of FMCs or RYO tobacco, and menthol-flavoured filters as other ways of circumventing the menthol ban. Both products can be displayed at the point of sale in England and Wales, unlike products containing tobacco. This demonstrates a clear pattern of the tobacco industry innovating their products to circumvent regulations primarily aimed at reducing harmful tobacco use.

The introduction of standardised packaging has not been accompanied by a growth in illicit tobacco. UK Government (HMRC tax gap) figures do not indicate rising levels of illicit tobacco.

Summary: University of Stirling project

Summary of methods

Stirling used EPoS data to monitor the availability and pricing of tobacco products sold by a stratified random sample of small retailers in England, Scotland and Wales (*n*=500). Data were monitored for 18 months (May 2016 – October 2017), which covered the 12-month transition period and six months after standardised packaging became mandatory. The study specifically monitored 40 tobacco products, which comprised 20 of the bestselling fully branded products at baseline (fifteen FMCs and five RYO 25g products – selected using the previous year of sales data) and the 20 standardised tobacco products that replaced them. The analyses focused on:

1. how quickly small retailers transitioned from fully branded to standardised packaging;
2. the Recommended Retail Prices (RRPs) and sales prices for each product (i.e. inflation adjusted price-per-cigarette or per-gram); and
3. how closely retailers adhered to RRPs. Data were supplied by the Retail Data Partnership Limited.

The Retail Data Partnership also provided information about compliance – i.e. whether retailers were only selling tobacco in standardised packaging – for 10 weeks after standardised packaging became mandatory. Data were collected for the first week after this date and bi-weekly thereafter. For each week, data were available for an average of 2,414 small retailers. In each week, analyses focused on:

1. the total number of retailers selling fully branded products only, standardised products only, or both;
2. the total range of fully branded or standardised products sold (i.e. the number of different products); and
3. the total volume of product sales (both overall, and in either fully branded or standardised packaging).

Stirling also conducted an audit of the tobacco retail trade press to provide contextual

information for the price data monitoring. For this study, they searched for content specifically relating to the availability and pricing of FMC and RYO tobacco. Titles were scanned between May 2016 to October 2017, mirroring the period of the price data monitoring.

Key findings

Tobacco companies used the full 12-month transition period to delay the removal of fully-branded products and gradually phase in standardised packaging. Of the 20 fully branded products monitored, 18 continued to be sold throughout the transition period but some changed name. Almost all new names included a colour descriptor and adjective.

No standardised variants were sold in the first five months. It was not until March 2017 (two months before mandatory compliance) that the average number of standardised products sold by each retailer exceeded the number of fully branded products. The industry's gradual introduction of standardised packaging prolonged the use of fully branded packaging across the full transition period. This technique may have mitigated some of the immediate intended effects of the legislation by gradually desensitising consumers to the new packaging designs while they were in circulation among fully-branded designs.

Compliance was mostly high among small retailers. In the first week after standardised packaging became mandatory, 97.4% of all tobacco sales in sample were for standardised products, and this rose to 99.5% by week 10. Although at least half of small retailers had still sold at least one fully branded product in week 10, this only constituted 0.5% of all sales volume. A small minority of retailers in the main study sample were observed to have sold some fully branded products up to six months after it became mandatory to sell only standardised products. This occurred despite retailers having 12-months to sell or dispose of non-compliant stock and the risk of sanctions for non-compliance.

The average inflation-adjusted RRP and sales price-per-cigarette increased for FMCs (all price segments), and the RRP and sales price-per-gram for RYO also increased. For example, between May 2016 and October 2017, the average sales price-per-cigarette increased +4.6%, equivalent to a £0.38 increase on 20 FMCs. In monetary terms, the increase was highest for premium FMCs (+5.3%, £0.54 increase per 20 FMCs), followed by value FMCs (+6.8%, £0.48 increase per 20 FMCs) and mid-price FMC (+3.3%, increase £0.20 per 20 FMCs)[7]. The average sales price-per-gram for RYO increased 8.3%, which was equivalent to a £0.91 increase for a 30g packs. These rises are at odds with tobacco companies' claims that prices would decrease after standardised packaging, therefore increasing the affordability of tobacco and, subsequently, consumption. Conversely, in fact, that both the average RRP-per-cigarette and RRP-per-gram also increased implies that it was tobacco companies who instigated the rises. The biggest increases occurred around increases in duty inflation and, for FMCs, around implementation of the MET.

In the trade press, retailers were strongly advised to sell tobacco at, or below, RRP to remain competitive and were encouraged to maintain the availability of fully-branded and non-compliant products for as long as possible. Almost all retail trade press content on this topic were interviews with, or advertorials produced by, tobacco companies and wholesalers, or information from other retailers. This highlights that the trade press remains a key advertising

[7] Details on how the price bands (e.g. premium) were categorised is reported in the peer-reviewed papers.

opportunity for tobacco companies to nudge retailers towards marketing strategies intended to maintain the appeal of their products among people who smoke. For example, by keeping more attractive fully branded products on the market for as long as possible and therefore undermine the new legislation.

Despite tobacco companies emphasising the importance of selling at RRP or less, small retailers gradually increased prices above RRP as standardised packaging was introduced. The average difference between RRP and sales price increased from +0.36% above RRP in May 2016, when only fully-branded packs were sold, to +1.37% in October 2017, when standardised packs were mandatory. Increases above RRP for fully-branded packs became larger as they were phased out, with deviation greater for non-price-marked packs and premium products. There was no evidence of retailers selling fully-branded products below RRP to expedite sale of non-compliant stock. Increases above RRP for fully-branded products may have reflected retailers' attempts to capitalise on consumer willingness to pay more for more attractive packaging, particularly as such packs became increasingly rare after the introduction of the new legislation. For standardised products, it is possible that retailers used changes in pack design, size and name, and the removal of price-marking, to opportunistically increase margins by capitalising on consumer confusion.

Consistent themes across both projects

In addition to the key findings from each study outlined above, which make important unique contributions to understanding, there are a several key findings which are consistent across both projects:

Tobacco companies took full advantage of the 12-month transition period. This transition period was longer than permitted in Australia (2 months) and France (9 months). The two studies suggest that tobacco companies used this to: (1) delay the removal of fully branded products; (2) delay the introduction of products in standardised packaging and to make the introduction gradual; (3) inform customers and retailers about changes; and (4) introduce new product innovations such as changes to the structure of the pack or filter innovation. Doing so prolonged the use of fully-branded packaging and may have mitigated some of the immediate intended effects of the legislation by gradually desensitising consumers to the new pack designs. That only a limited number of standardised products were sold in the first seven months suggests it was not necessary to allow 12 months for the transition. The original reasons why this length of transition was permitted are unclear.

Tobacco companies falsely claimed that standardised packaging would lead to lower prices and, consequently, greater consumption. Both studies found that prices increased as standardised packaging was implemented. The Bath research uniquely showed that there was a marked increase in price for the cheapest FMC products in the months leading up to implementation of the MET, and that prices continued to be used for market segmentation. Bath also demonstrated that implementation of standardised packaging and the MET was associated with a decrease in sales volume and a corresponding reduction in tobacco company revenue. The research conducted by Stirling uniquely showed that there were also increases in RRPs, suggesting that price increases were likely driven by tobacco companies — despite tobacco industry claiming predictions of price falls. As Bath rightly pointed out, the simultaneous introduction of the MET may have encouraged price growth. Thus, a robust tax

system is advantageous when introducing marketing controls.

Once standardised packaging was mandatory, compliance was high in terms of sales volume. Although the Stirling study detected some instances of non-compliant sales among small retailers post-implementation, both studies found that almost all sales were of tobacco products in standardised packaging once the legislation became mandatory, thus showing good compliance among both the large and smaller retail sectors.

There was, however, some evidence of exploitation of loopholes by tobacco companies. This included innovation to differentiate products using mechanisms still permitted under the new legislation. The research by Bath found that tobacco companies were exploring alternative ways of creating product appeal and differentiation, including changes to the pack structure (bevelled edges), introducing new brand variants (e.g. menthol and flavour changing capsules), and other innovations (e.g. filter tips designs). Both studies found that tobacco companies had responded to restrictions on brand variant names by introducing new terms which still evoked old connotations, such as the fully-branded packaging colour, and misconceptions about health consequences of smoking different products.

Adverts in the retail trade press show that retailers continue to be an important audience for tobacco company marketing. Across both studies, articles in the trade press encouraged convenience stores to closely adhere to RRP to attract sales from price sensitive consumers and retailers were encouraged to consider products that were exempt from the legislation (e.g. cigars, cigarillos, pipe tobacco). Retailers also continued to be exposed to fully branded packaging, both through adverts or advertorials in the trade press, and fully branded outer packaging (e.g. the packaging for multipacks available at the wholesalers). Concerning the latter, it's unclear why the stipulations of standardised packaging only applied to consumers, and not all forms of packaging used in the retail process.

Policy recommendations

The findings outlined in this paper identify a number of areas to support policymakers in the UK and elsewhere to strengthen existing standardised tobacco packaging policies. Based on the research summarised in this paper, Cancer Research UK offer the below recommendations:

1. UK policymakers should **close existing or potential loopholes** which enable tobacco companies to differentiate their products from others on the market, as these features may appeal to consumers and undermines the potential of these regulations. At the very least, legislation should be put in place to ban the new packaging and product features seen in the UK. This means banning packaging innovations such as bevelled edges on FMC packs, new pack seals or novel FMC filter designs. In the UK, research has found that while adolescents have negative reactions to the standardised packs, the permitted variations in structure can reduce the extent of these negative reactions[8,9]. This further makes the case for banning these innovations to reduce appeal among young people and increase the potential efficacy of standardised packaging policies. These product innovations were banned through equivalent legislation in Australia, and it is not immediately clear why they were permitted in the UK.

2. UK policymakers should ensure **standardised packaging legislation applies to all tobacco products** (including cigars, cigarillos, pipe tobacco and heated tobacco products) **and accessories** (such as RYO filters and papers), to avoid tobacco companies growing these markets. For example, the growth of the menthol cigarillo market in the UK is a clear example of how the industry has not only undermined standardised packaging legislation, but has also found a loophole in the legislation banning the use of flavours in tobacco, as these regulations only apply to FMCs and RYO. To prevent similar issues arising in the future, standardised packaging legislation should simply apply to *all* tobacco products and accessories rather than naming them individually. While not the focus of this summary, the principle of uniformly applying restrictions to all tobacco products should also be considered in the legislation banning the use of flavours.

3. UK policy-makers should **consider banning the use of colours or other descriptors** in product variant names, as companies continue to innovate their product names and descriptions to infer they are less harmful, or to invoke the pack's past colour in consumers' minds, which undermines the fundamental aims that standardised packaging aims to achieve.

4. Considering the tobacco industry's use of trade press to launch and promote new tobacco products and accessories, **UK policymakers should consider ways of counteracting this**

[8] Mitchell D. et al. (2019). Adolescents' perceptions of standardised cigarette packaging design and brand variant name post-implementation: a focus group study in Scotland. BMC Public Health: 19;1227.

[9] Mitchell D et al. (2020) Reactions to standardised cigarette packs with varying structural designs, the association with smoking susceptibility: A postimplementation cross-sectional survey with never-smoking adolescents in Scotland. Nicotine & Tobacco Research: 22(11).

influence through trade press, including potential restrictions on content permitted in trade press. As part of this, UK policymakers should have a greater dialogue with retailers about the rationale for tobacco control measures like standardised packaging.

5. UK policymakers should continue to review and implement appropriate **marketing controls and a robust tax system**, which have helped to prevent the sale of cheap tobacco products. One factor in the success of UK's standardised packaging policy was that it was introduced alongside MET, which was successful in increasing the price of the cheapest cigarettes. Overall, under-shifting became less extensive, indicating that tobacco industry manipulation of the tax system, which had previously kept cheap products available, had declined.

The research outlined in this paper also provides valuable insights for those countries yet to or planning to introduce similar standardised tobacco packaging regulations. In response, Cancer Research UK recommends the following:

6. To have the most impact, standardised packaging should be introduced with **a short transition period, as per the original implementation in Australia**. Having a longer transition period allows the industry to sell more attractive fully-branded products for longer, which undermines these important regulations. In the UK, a longer transition period gave tobacco companies time to promote new product names and features to retailers and consumers, and provided an opportunity to gradually implement standardised packaging to reduce any "shock" impact which could have been brought about by a rapid switch.

7. Based on learnings from the UK, policymakers should future proof their legislation and **close potential loopholes** that enable tobacco companies to circumvent and undermine standardised packaging regulations. This means ensuring regulations **apply standardised packaging to all tobacco products and accessories** to prevent companies from growing new tobacco product markets and ensuring **restrictions cover all aspects of tobacco packaging,** to prevent companies innovating with shape, features and accessories, and product names that may appeal to consumers as they ultimately undermine the potential of these regulations.

8. From the success seen in the UK, policymakers should be aware of the importance of **strong marketing controls and a robust tax system** to prevent surges in the sale of cheap products and should implement **complimentary policies** alongside standardised packaging legislation to disincentivise tobacco sales and consumption.

Unresolved research questions

To date, the evidence we have on the market and industry response to standardised packaging shows that, despite tobacco industry's tactics to undermine the effect of the legislation, this legislation has been effective in reducing tobacco sales and in tobacco industry revenues in the UK. However, there are still gaps in the academic literature that must be addressed in order to fully evaluate the impact of the legislation. While by no means an exhaustive list, the following key research gaps have been identified:

Smoking behaviours

1. What was the impact of standardised packaging of tobacco products on smoking prevalence in the UK?

2. As standardised packaging was intended to reduce youth uptake of tobacco products, what was the impact of standardised packaging on youth smoking prevalence and consumption in the UK?

3. Did standardised packaging influence health warning salience on tobacco products in the UK?

4. Did the introduction of standardised packaging alter perceptions of tobacco products among adults and young people in the UK?

Market response

5. Authors of retail press articles claim that tobacco sales are important for footfall to stores. What was the impact of standardised packaging on retailer profits and viability in the UK?

Implementation

6. Was the impact of standardised packaging of tobacco products different in the UK to other countries where it has been introduced? And if so, why?

7. What was the impact of standardised packaging separate to the impact of the MET in the UK?

References

List of outputs from the Bath project

Branston, J, Hiscock, R Silver K, Arnott, A and Gilmore, A.B (2020) Cigarette-like cigarillo introduced to bypass taxation, standardised packaging, minimum pack sizes and menthol ban in the UK'. *Tobacco Control*; Published Online First: 27 Aug 2020. doi:10.1136/tobaccocontrol-2020-055700.

Evans-Reeves, K.A., Hiscock, R., Lauber, K., Gilmore, A.B. (2019). Prospective longitudinal study of tobacco company adaptation to standardised packaging in the UK: identifying circumventions and closing loopholes. *BMJ Open, 9*(9), e028506.

Hiscock, R., Augustin, N., Branston, J, *et al.* (2020). Standardised packaging, minimum excise tax, and RYO focussed tax rise implications for UK tobacco pricing. *PLoS One*, *15*(2), e0228069.

Hiscock, R., Augustin, N., Branston, J, *et al.* (2020). Longitudinal evaluation of the impact of standardised packaging and minimum excise tax on tobacco sales and industry revenue in the UK. *Tobacco Control.*

Hiscock R, Silver K, Zatoński M, *et al.* (2020). Tobacco industry tactics to circumvent and undermine the menthol cigarette ban in the UK. *Tobacco Control* Published Online First: 17 May 2020. doi: 10.1136/tobaccocontrol-2020-055769

Tobacco Tactics. (2020). Menthol cigarettes: tobacco industry interests and interference, 2020. https://tobaccotactics.org/wiki/menthol-cigarettes-tobacco-industry-interests-and-interference/

List of outputs from the Stirling project

Critchlow, N., Stead, M., Moodie, C., Eadie, D., & MacKintosh, A.M. (2018). Did independent and convenience (small) retailers comply with standardised tobacco packaging in the UK. *Tobacco Control, 27*, 696-697.

Critchlow, N., Stead, M., Moodie, C., Angus, K., Eadie, D., & MacKintosh, A.M. (2019). Pricing of tobacco products during, and after the introduction of standardised packaging: An observation study of retail price data from independent and convenience (small) retailers in the United Kingdom. *Addiction, 114*(3), 523-533.

Critchlow, N., Stead, M., Moodie, C., Eadie, D., & MacKintosh, A.M. (2018). Introduction of standardised tobacco packaging during a 12-month transition period: Findings from small retailers in the United Kingdom. *Nicotine and Tobacco Research, 21*(7), 871-878.

Critchlow, N., Stead, M., Moodie, C., Eadie, D., & MacKintosh, A.M. (2019). Difference between recommended retail price and sales price for tobacco products in independent and convenience (small) retailers before and after the introduction of standardised packaging in the UK. *Tobacco Control, 28*(3), 449-456.

Critchlow, N., & Mitchell, D. (2018, Dec 18). Plain packaging for tobacco: What other countries can learn from the UK's experience. *The Conversation.* Available: https://theconversation.com/plain-packaging-for-tobacco-what-other-countries-can-learn-from-the-uks-experience-106094.